# SMALL ARMS UPDATE

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# Purpose

To provide an overview on soldier weapons, ammunition and accessories observed in Iraq by the Soldier Weapons Assessment Team.

# Overall Assessment (OIF)

- **Generally, weapons, ammunition and accessories functioned properly and reliably during OIF. The weapons that stood out were the M2 HMG, M240B MMG, and the M4 MWS.**
- **M16 Series: The M16 series received widespread praise for its durability and reliability. The M4 is by far the preferred individual weapon across the theatre of operations. Units that don't have it want it.**
- **Ammunition/Cartridges Functioned Properly and Reliably in their intended modes. However, Soldiers**

**Soldier confidence with current weapon systems against known enemy threat posture is high.**

# Small Arms Working Issues
# M16/M4 MWS

**Sustain**

- **Modularity (Rail Adapter System)**
- **Portability (M4 is ideal for Urban Operations)**
- **M68 CCO (enabled soldiers to quickly acquire & engage)**

**Issues**

- **Magazine reliability**
- **The M16 too cumbersome**
- **Multiple steps to boresighting procedures**
- **Low confidence in rail grabber retention**
- **Perceived ammunition lethality**

**Initiatives**

- **Improved magazines (RFI); ARDEC ballistic testing**
- **Improved butt stock (RFI)**
- **M68 CCO (RFI)**
- **Modular Weapon System Kit (RFI)**
- **OICW Increment 1 (Kinetic Energy modular**

# Small Arms Working Issues M203

**Sustain**

- Simple to operate
- Variety of ammunition

**Issues**

- Target acquisition/fire control
- Night engagement capability
- Sand & dirt migrates into trigger housing
- Ammo vest don't interface well with Interceptor Body Armor
- Ammo accuracy and target effect

**Initiatives**

- M203 Day/night sight (RFI)
- IR Illumination
- Improved Grenade Launcher (OICW Increment 1)

# Small Arms Working Issues
# M249SAW

**ustain**

- Rate of fire
- 100 Round soft pack
- Forward rails

**sues**

- Maintainability
- Durability
- Lack of an optic & night engagement capability
- Bipod durability
- Weapon functionality
- Weight

**itiatives**

- M145 Machine Gun Optic-MGO (RFI)
- M249 Ammo Soft pack
- M249 Short barrel (RFI)
- Collapsible buttstock (RFI)
- Improved bipod

# Restructuring OICW Requirements

**Original OICW Requirements**

- **Dual Munitions System**
  - **Air Bursting Munitions Provide Revolutionary Capability Against Defilade Targets**
  - **5.56mm Kinetic Energy Capability**
- **Target Acquisition/Fire Control Capability ≥ Suite contained in M4 Modular Weapons System**

**OICW (Change 1) Requirements**

- **Family of Weapons**
  - **Carbine**
  - **Special Compact**
  - **Designated Squad Marksman**
  - **Automatic Rifle / LMG**
- **Lighter weight, improved reliability & reduced training time**
- **Future Blocks will include new and advanced technologies (precision high explosive air bursting ammunitions, improved**

# OICW Weapon Evolution

## OICW ORD

11 Feb 00

**Dual Barrel Weapon**

High Explosive Air Busting Weapon

Kinetic Energy Weapon

Original OICW weapon was modular in design and employment

## OICW CDD Increment 1

Draft – Jul 04

**Family of Weapons**

Special Compact

Carbine

Designated Marksman

Lightweight Machinegun?

# Small Arms Working Issues M24 Sniper Weapon System

**stain**

**Durability**

**Reliability**

**M3A Day optic (Good fit for the M24)**

**M118LR Cartridge**

**ues**

**Rate of fire (not adequate to engage multiple targets**

**AN/PVS-10 (Too bulky)**

**uppressor for signature reduction**

**rgonomic stock**

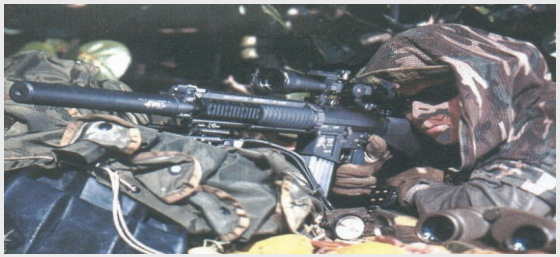
**itiatives**

**potting scope with tripod (RFI)**

**emi-Automatic Sniper System**

# Semi-Automatic Sniper System (SASS)

## Operational Need



- **Identified Need:**

  **Provide greater sniper lethality and survivability**
  - **High rate of fire yields greater lethality**
  - **Suppressor enhances sniper team survivability**
  - **Reduced weight vs M24**
  - **Better supports sniper doctrine (support Infantry by fire missions)**
  - **Rapid Magazine change with sniper ammo and / or armor piercing vs M24**
  - **Range and accuracy adequate for most sniper missi – especially Urban Operations**
  - **System includes Sniper Spotter Scope and Suppress**

**Need validated by:**
- **82nd Abn Div**
- **101st AASLT Div**
- **10th MTN Div**
- **USASOC**
- **OEF and OIF AARs**
- **JRTC Muddy Boots Council**
- **SaaS identified user need**
- **VCSA Identified Infantry MOUT deficiencies**
- **Spotting Scope a Core RFI recommended item**

- **Replace Existing Item: TBD**

**BOI / Fielding Concept / Quantities: 2.5K**

# Small Arms Working Issues M107 Long Range Sniper Rifle

**Sustain**

- Range (2000 meters)
- Accuracy
- Combat multiplier

**Issues**

- Too heavy
- More ergonomic stock (for better cheek weld)
- Suppressor

**Initiatives**

- Improved spotting scope with tripod (RFI)
- XM1022 Long Range Sniper Rifle Cartridge
- Suppressor (P3I)
- Improved Scope

# Small Arms Working Issues M240B MMG

**ustain**

- Reliability (Cited as its best characteristic)
- Durability
- Accuracy
- Rate of fire

**sues**

- Portability (Reduce the weight)
- Sight magnification & Field Of View

**itiatives**

- Forward rails (RFI)
- M145 Machine Gun Optic-MGO (RFI)
- Weight reduction program
- Light weight tripod

# Small Arms Working Issues M2 .50 Cal

**Sustain**

- **Most reliable and dura**
- **Lethality**
- **Psychological effects**

**Issues**

- **Target acquisition/fire control**
- **Heavy Thermal Weapon Sight-HTWS (Desired for an integrated sight)**
- **Weapons portability (Decrease the weight)**

**Initiatives**

- **Common Remotely Operated Weapon Station (CROWS)**

# Small Arms Working Issues MK19

**ustain**

- **Range (2000  meters)**
- **Easy to maintain**

**sues**

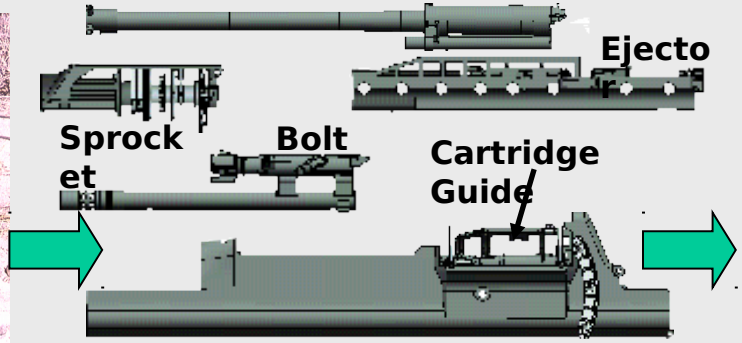
- **Target acquisition/fire control**
- **Night capability**
- **ntegrated sight**
- **Re-linking of Ammunition**

**itiatives**

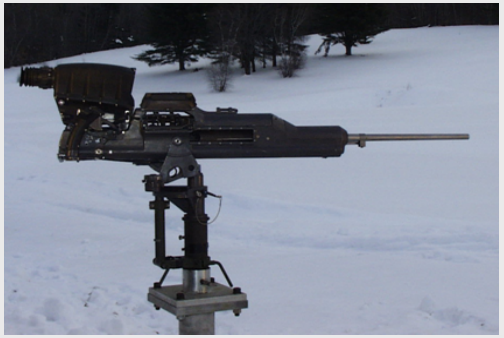
- **OCSW**
- **Common Remotely Operated Weapon Station (CROWS**

# Potential OCSW Candidate (XM307/XM312)

XM307




Information
XM307 Cal .50 Variant
Unique Components



XM312 Cal .50 Variant

## Characteristics

- Weight (no ammo): 50.3 Lbs (today)
- Integrated full solution fire control
- Day/Night/All weather capable
- No headspace or timing adjustments

## Capabilities

- Range: 2000m
- Time of flight: 8.9 Sec to 2000m
- Penetration (mm RHA): 51mm
- System dispersion less than 1.5 mil
- 25mm Air-bursting munitions
- Armor piercing munitions

# mmon Remotely Operated Weapon Station (CRO

CROWS on
UA HMMWV M1116

CROWS on
ASV M1117

- The CROWS is capable of mounting the MK-19 GMG, M2 machine gun (MG), the M240 MG, and the M249 Squad Automatic Weapon (SAW)

- The CROWS will provide protection and enhanced target acquisition, identification, and engagement capabilities to non-turreted light armored vehicles whose mission places the unprotected gunner at high risk of engagement from the enemy direct and indirect fire weapon systems

- USAIC currently has personnel fielding and studying the CROWS in battlefield applications in Iraq

- The 1st Armored Division is so impressed with the CROWS that they are staffing an Operational Need Statement (ONS), requesting that the Department of the Army provide adequate funding to make expeditious fielding support to units in contact

# Small Arms Working Issues M500 Shotgun

**Sustain**

- Used for ballistic breaching
- Simple system to operate (pump action)

**Issues**

- Increased use and need in Urban Operations
- Units purchased components
- More maintainable and integrated

**Initiatives**

- Lightweight Shotgun System (RFI)
- Modular Accessory Shotgun System (FY04 SEP)

# Modular Accessory Shotgun System (MASS)

## Operational Need

- **<u>Identified Need</u>:**
  **Increase lethality through ballistic door breach a**
  **non-lethal weapon platform**
  - **Modular and Integrated with already issued weapo**
  - **Utilizes existing weapon enablers**
  - **Lighter than M203 (2.9lbs) and stand alone (6.8lbs)**
  - **More compact than stand alone**
  - **Reduces Soldier MOUT load by four lbs**
  - **Easily mission configurable using quick disconnect**

**Need validated by:**
- **82nd Abn Div**
- **101st AASLT Div**
- **10th MTN Div**
- **USASOC**
- **OEF and OIF AARs**
- **JRTC Muddy Boots Council**
- **SaaS identified user need**
- **USAIC Top 10% project list**
- **VCSA Identified Infantry MOUT deficiencies**
- **A Core RFI Item**

**Replace Existing Item: Yes / M500**

**/ Fielding Concept / Quantities: Replace M500 / Two per squad / ~ 22K**

# Small Arms Working Issues M9 Pistol

**ustain**

- **Simple to maintain and operate**
- **Accuracy**

**sues**

- **Lethality (Desire lethality equal to a .40 or .45 cal)**
- **Magazines**
- **Integrated Rail**
- **Enhanced Sighting Mechanisms**

**itiatives**

- **Future Handgun System (Approved FY 04 SEP)**

# Questions